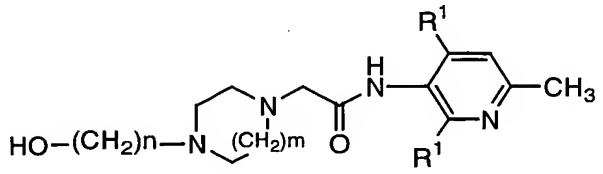
Claims

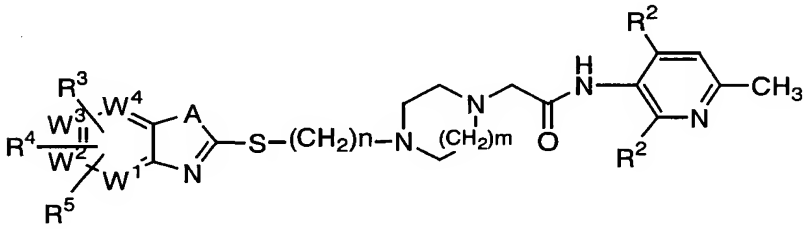
1. A hydroxyalkyl cyclic diamine compound represented by the following formula (1):



(1)

(wherein R^1 denotes a halogen atom, m is 1 or 2, and n is an integer of 1 to 6).

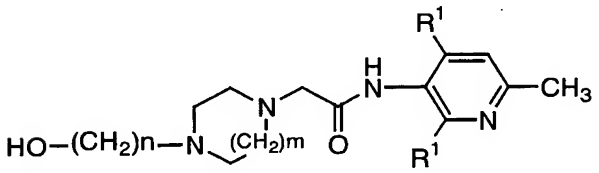
2. A process for producing a cyclic diamine derivative represented by the following formula (5) or a salt thereof:



(5)

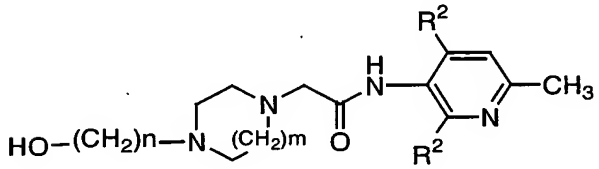
(wherein A denotes NH, an oxygen atom, or a sulfur atom; each of W^1 to W^4 denotes CH or any one of the W^1 to W^4 denotes a nitrogen atom, R^2 denotes a lower alkylthio group, a mono- or di-lower-alkylamino group, a cyclic amino group, a lower alkoxy group, a halo-lower alkoxy group, or a lower alkoxy lower alkoxy group, and each of R^3, R^4, and R^5 denotes a halogen atom, a lower alkyl group, a lower alkoxy group, a lower alkoxycarbonyl group, a halo-lower alkyl group, a halo-lower alkoxy group, a lower alkoxy lower alkyl group, a lower alkoxy lower alkoxy group, a hydroxy lower alkyl group, a

hydroxy lower alkoxy group, a lower alkylcarbonyl group, a lower alkylthio group, a lower alkylsulfinyl group, a lower alkylsulfonyl group, a nitro group, or a cyano group, m is 1 or 2, and n is an integer of 1 to 6), characterized in that the method comprises reacting a hydroxyalkyl cyclic diamine compound represented by the following formula (1):



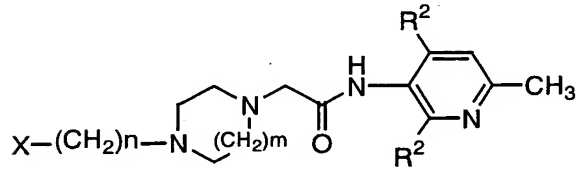
(1)

(wherein R^1 denotes a halogen atom, and each of m and n has the same meaning as defined above) with R^2H (wherein R^2 has the same meaning as defined above), to thereby form a compound represented by the following formula (2):



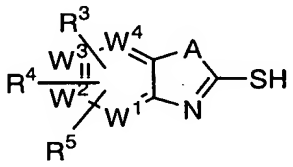
(2)

(wherein each of R^2, m, and n has the same meaning as mentioned above); transforming the hydroxyl group of the compound represented by formula (2) into a leaving group, to thereby form a compound represented by the following formula (3):



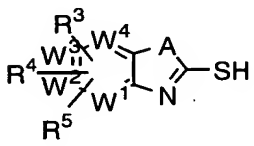
(3)

(wherein X denotes a leaving group, and each of R^2, m, and n has the same meaning as defined above); and reacting the compound (3) with a thiol derivative represented by the following formula (4):

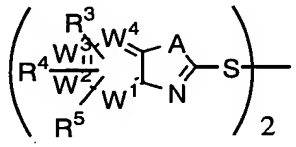


(4)

(wherein each of A, W^1 to W^4, R^3, R^4, and R^5 has the same meaning as defined above), or reacting the compound (2) with a thiol derivative represented by the following formula (4) or (4'):



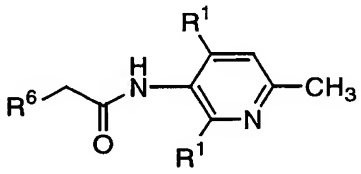
or



(4) (4')

(wherein each of A, W^1 to W^4, and R^3 to R^5 has the same meaning as defined above) in the presence of a phosphorus compound.

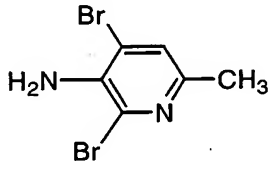
3. An acetamide compound represented by the following formula (6):



(6)

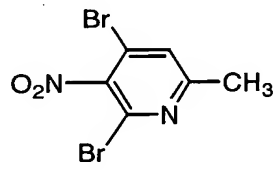
(wherein each of R^1 and R^6, which may be identical to or different from each other, denotes a halogen atom).

4. 3-Amino-2,4-dibromo-6-methylpyridine represented by the following formula (7a).



(7a)

5. 2,4-Dibromo-6-methyl-3-nitropyridine represented by the following formula (24).



(24)